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History of hydroacoustic surveys of small pelagic fish species in the European Mediterranean Sea

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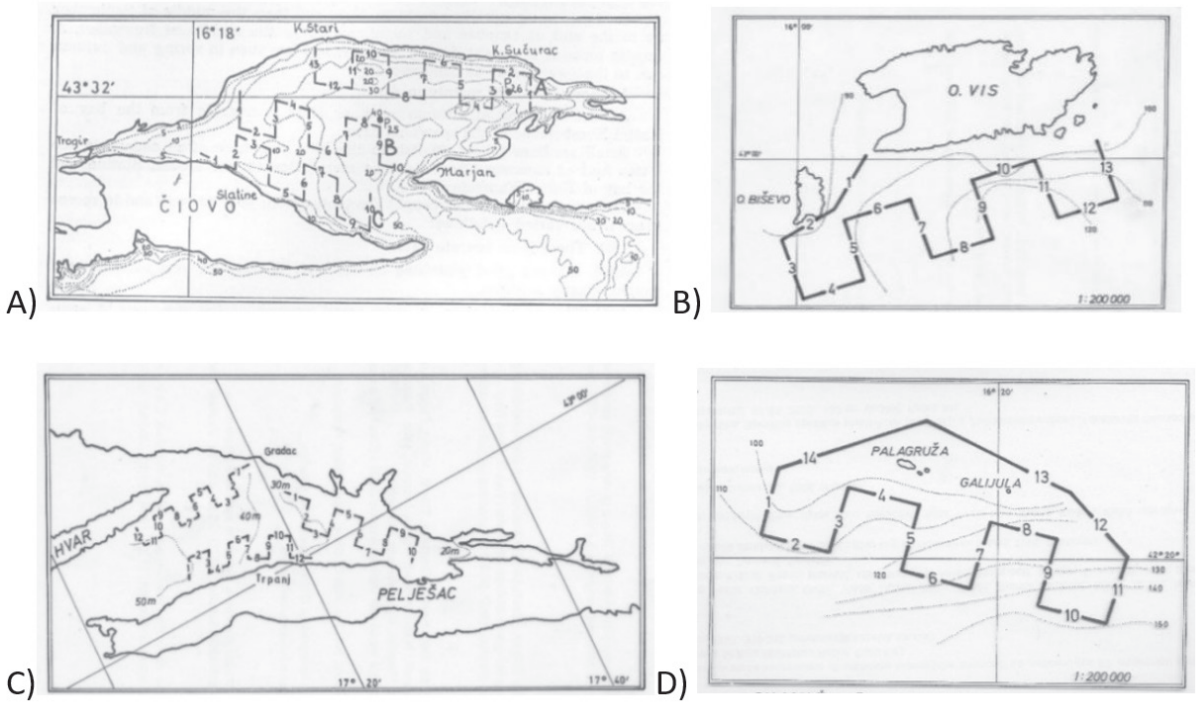

Figure S1: Acoustic transects in targeted survey areas conducted in the Adriatic Sea in 1968-1972. (A) Kaštela Bay; (B) areas near Vis and Biševo islands; (C) Hvar Island-Neretva Channel and (D) Palagruža Sill (Kačić, 1968, 1969, 1972a, b; Grubišić et al., 1974; Vučetić & Kačić, 1973).

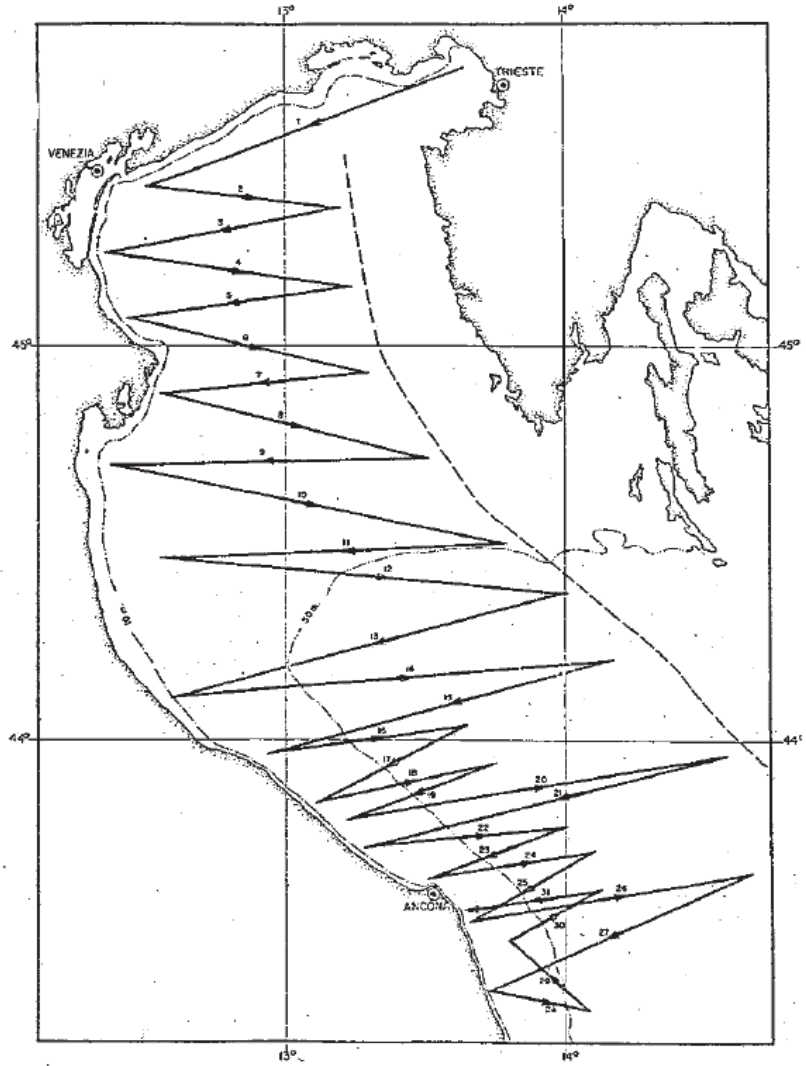

Figure S2: Design of the pilot acoustic survey conducted in the Adriatic Sea in 1975 (Azzali, 1977).

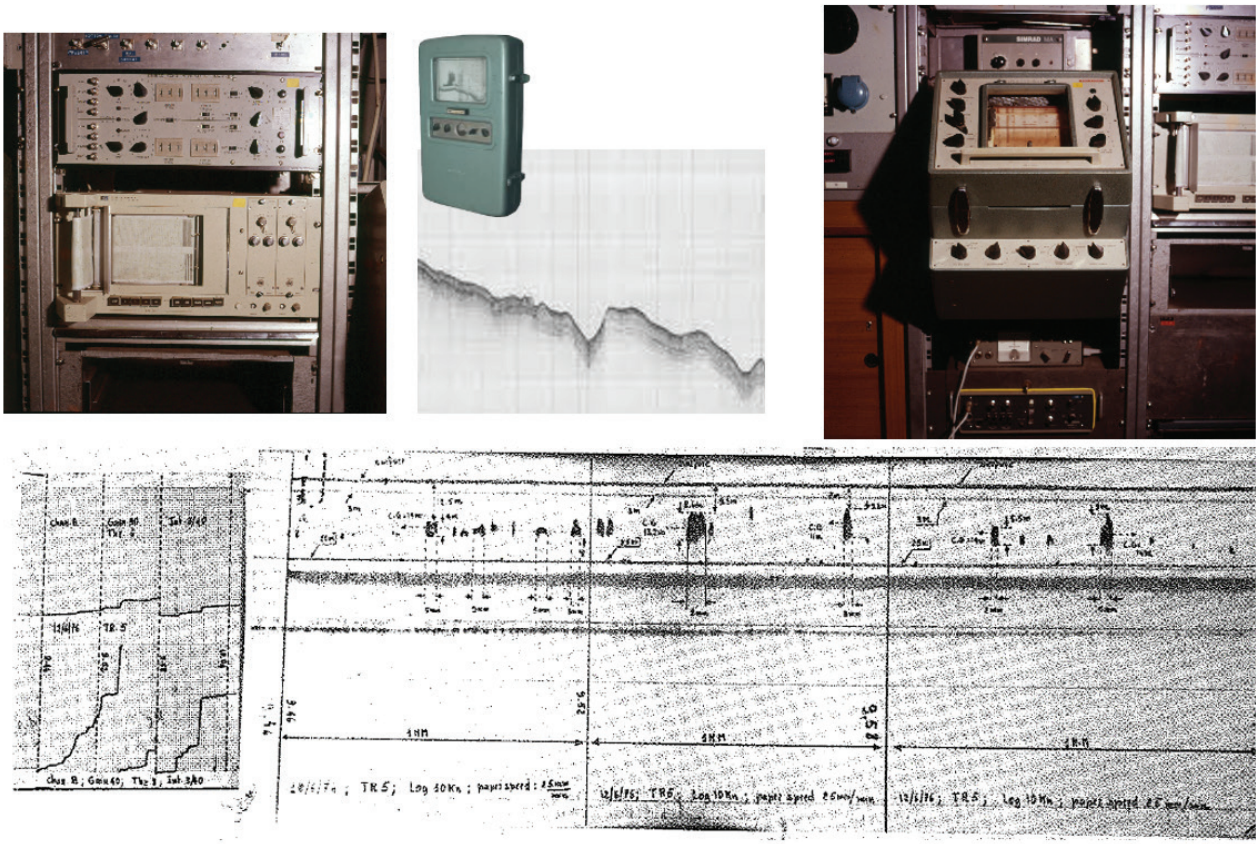

Figure S3: Acoustic equipment mounted onboard the Italian R/V *S. Salvatore Lo Bianco* in the 1970's and 1980's. Simrad QM-MK II echo integrator and associated computer (top left). A 38 kHz transducer in "wide" bandwidth configuration was used. A Simrad SL sonar (top right). Echograms of small sardine aggregations (right) printed on wet (top) and/or dry paper tape and relevant echo integrations (left). Time interval 9:46 - 10:04.

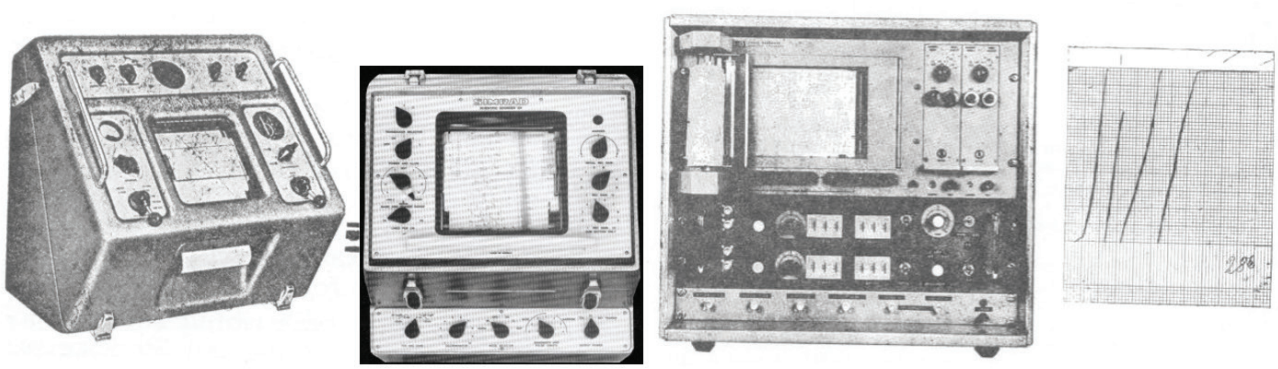

Figure S4: Acoustic equipment used in the 1960's, 1970's and 1980's.

Table S1. List of Mediterranean acoustic surveys from 1962 to 2019, by Country.

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
1962	**EX-YU**	**17 E**		BIOS	27	SIMRAD 580-4	30			pil	ane	PS	
1963	**EX-YU**	**17 E**		BIOS	27	SIMRAD 580-4	30			pil	ane		
1964	**EX-YU**	**17 E**		BIOS	27	SIMRAD 580-4	30			pil	ane		
1965	**EX-YU**	**17 E**		BIOS	27	SIMRAD 580-4	30			pil	ane		

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
1966	**EX-YU**	**17 E**		BIOS	27	SIMRAD 580-4	30			pil	ane		
1967	**EX-YU**	**17 E**		BIOS	27	SIMRAD 580-4	30			pil	ane		
1969	**EX-YU**	**17 E**	5, 6	BIOS	27	SIMRAD Super Sounder EH, 580-4	30	38		ane, pil, spr		OTM	20
1970	**EX-YU**	**17 E**	3, 5, 8	BIOS	27	SIMRAD Super Sounder EH, 580-4	30	38		ane, pil, spr		OTM	20
1971	**EX-YU**	**17 E**	3, 11	BIOS	27	SIMRAD Super Sounder EH, 580-4	30	38		ane, pil, spr			20
1972	**EX-YU**	**17 E**	3	BIOS	27	SIMRAD Super Sounder EH, 580-4	30	38		SPF			
1973	**EX-YU**	**17 E**	10, 12	BIOS	27	SIMRAD 580-4	30	38		SPF		OTM	20
1974	**EX-YU**	**17 E**	1, 4	BIOS	27	SIMRAD 580-4	30	38		SPF		OTM	20
1975	**ITA**	**17 W**	7	S. LO BIANCO	32	SIMRAD EK38	38			SPF		OTM	18
1975	**ESP**	**5**	8, 11	EL PESCADOR	21	SIMRAD EK38S	38			PS		OTM	20
1976	**ITA**	**17 W**	6	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1976	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1976	**ESP**	**5**	8	EL PESCADOR	21	SIMRAD EK38S	38			PS		OTM	20
1977	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1977	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1977	**ESP**	**5**	7	EL PESCADOR	21	SIMRAD EK38S	38			PS		OTM	20
1978	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1978	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1979	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1979	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1980	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1980	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1981	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1981	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
1982	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1982	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1982	**ESP**	**1, 6**	6	C. DE SAAVE-DRA	67	SIMRAD EK400	38	120		PS	OPS	OTM	20
1983	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1983	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1983	**ESP**	**1, 5, 6**	9, 10	C. DE SAAVE-DRA	67	SIMRAD EK400	38	120		ane, pil	OPS	OTM	20
1984	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK38	38			ane, pil, spr	OPS	OTM	18
1984	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1984	**ESP**	**1, 5, 6**	10, 11	C. DE SAAVE-DRA	67	SIMRAD EK400	38	120		ane, pil	OPS	OTM	20
1985	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18
1985	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1985	**ESP**	**5**	7	GARCIA DEL CID	37.2	SIMRAD EK400	38	120		ane, pil	OPS	OTM	20
1985	**ESP**	**1, 6**	10, 11	C. DE SAAVE-DRA	67	SIMRAD EK400	38	120		ane, pil	OPS	OTM	20
1986	**ITA**	**9, 10**	8, 9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS S	OTM	18
1986	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18
1986	**EX-YU**	**17 E**	8	BIOS	27	SIMRAD EK38A	38			SPF			
1987	**ITA**	**16**	6	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS	OTM	18
1987	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18
1987	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS	OTM	18
1987	**ESP**	**1, 6**	7	C. DE SAAVE-DRA	67	SIMRAD EK400	38	120		ane, pil	OPS	OTM	20
1988	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18
1988	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS	OTM	18
1988	**ESP**	**1, 6**	5, 6	C. DE SAAVE-DRA	67	SIMRAD EK400	38	120		ane, pil	OPS	OTM	20
1989	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18
1989	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS	OTM	18
1990	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
1990	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS	OTM	18
1990	**ESP**	**1, 6, 7**	10, 11	C. DE SAAVEDRA	67	SIMRAD EK500	38			ane, pil	OPS	OTM	20
1991	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18
1991	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS	OTM	18
1991	**ESP**	**1, 6, 7**	10, 11	C. DE SAAVEDRA	67	SIMRAD EK500	38			ane, pil	OPS	OTM	20
1992	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil, spr	OPS	OTM	18
1992	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK400	38			ane, pil	OPS	OTM	18
1992	**ESP**	**1, 6, 7**	10, 11	C. DE SAAVEDRA	67	SIMRAD EK500	38			ane, pil	OPS	OTM	20
1993	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
1993	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
1993	**ESP**	**1, 6**	10, 11	C. DE SAAVEDRA	67	SIMRAD EK500	38			ane, pil	OPS	OTM	20
1993	**FRA**	**7**	6, 7	THALASSA		MICREL OSSIAN 1500	38	120	Movies	ane, pil, spr			
1994	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
1994	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
1994	**ESP**	**1**	10, 11	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil	OPS	OTM	20
1994	**FRA**	**7**	6, 7	L'EUROPE	29.6	MICREL OSSIAN 1500	38	120	Movies	ane, pil, spr			
1995	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
1995	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
1995	**GRC**	**22**	6, 7	PHILIA	26	BS Dual Beam	38	120	BS	ane, pil		OTM	10
1995	**ESP**	**6**	11	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil	OPS	OTM	20
1995	**FRA**	**7**	8	L'EUROPE	29.6	MICREL OSSIAN 1500	38	120	Movies	ane, pil, spr			
1996	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
1996	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
1997	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
1997	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
1997	**GRC**	**22**	6, 7	PHILIA	26	SIMRAD EK500 BS Dual Beam	38	120	BI500, BS	ane, pil		OTM	10

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
1997	**ESP**	**1, 5, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil, rpil	OPS	OTM	20
1997	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
1998	**ITA**	**17 W**	9	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
1998	**ITA**	**18**	6, 7	S. LO BIANCO	32	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
1998	**GRC**	**22**	6, 7	PHILIA	26	SIMRAD EK500 BS Dual Beam	38	120	BI500, BS	ane, pil		OTM	10
1998	**ITA**	**16**	6, 7	S. LO BIANCO	32	SIMRAD EK500	38	120, 200	EV	ane, pil		OTM	18
1998	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil	OPS	OTM	20
1998	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
1999	**ITA**	**17 W**	9	THETIS	31.6	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
1999	**ITA**	**18**	6, 7	THETIS	31.6	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
1999	**GRC**	**22**	6, 7	PHILIA	26	BS Dual Beam	38	120	BS	ane, pil		OTM	10
1999	**GRC**	**20**	12, 1	PHILIA	26	BS Dual Beam	38	120	EV, BS	ane, pil		OTM	10
1999	**ITA**	**16**	6, 7	THETIS	31.6	SIMRAD EK500	38	120, 200	EV	ane, pil		OTM	18
1999	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil	OPS	OTM	20
1999	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2000	**ITA**	**17 W**	9	THETIS	31.6	SIMRAD EK500	38	120		ane, pil, spr	OPS	OTM	18
2000	**ITA**	**18**	6, 7	THETIS	31.6	SIMRAD EK500	38	120		ane, pil	OPS	OTM	18
2000	**GRC**	**22**	6, 7	PHILIA	26	BS Dual Beam	38	120	BS	ane, pil		OTM	10
2000	**GRC**	**20**	12, 1	PHILIA	26	BS Dual Beam	38	120	EV, BS	ane, pil		OTM	10
2000	**ITA**	**16**	6, 7	THETIS	31.6	SIMRAD EK500	38	120, 200	EV	ane, pil		OTM	18
2000	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil	OPS	OTM	20
2000	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2001	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200		ane, pil, spr	OPS	OTM	18
2001	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200		ane, pil	OPS	OTM	18
2001	**GRC**	**22**	6, 7	PHILIA	26	BS Dual Beam	38	120	BS	ane, pil		OTM	10
2001	**GRC**	**20**	12, 1	PHILIA	26	BS Dual Beam	38	120	EV, BS	ane, pil		OTM	10
2001	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120 , 200	EV	ane, pil		OTM	18
2001	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil	OPS	OTM	20

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
2001	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2002	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200		ane, pil, spr	OPS	OTM	18
2002	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200		ane, pil	OPS	OTM	18
2002	**GRC**	**22**	6, 7	PHILIA	26	BS Dual Beam	38	120	BS	ane, pil		OTM	10
2002	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120 , 200	EV	ane, pil		OTM	18
2002	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2003	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil, spr	OPS	OTM	18
2003	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil	OPS	OTM	18
2003	**GRC**	**22**	6, 7	PHILIA	26	BS DTX	38	120	EV	ane, pil		OTM	10
2003	**HRV**	**17 E**	9	BIOS	27	SIMRAD EK60	38	-	BI500	ane, pil, spr	OPS	OTM	16
2003	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120 , 200	EV	ane, pil		OTM	18
2003	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500 EY500	38		EV	ane, pil	OPS	OTM	20
2003	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2004	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil, spr	OPS	OTM	18
2004	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil	OPS	OTM	18
2004	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2004	**HRV**	**17 E**	9	BIOS	27	SIMRAD EK60	38	-	BI500	ane, pil, spr	OPS	OTM	16
2004	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil		OTM	18
2004	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500	38		EV	ane, pil	OPS	OTM	20
2004	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2005	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil, spr	OPS	OTM	18
2005	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil	OPS	OTM	18
2005	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2005	**HRV**	**17 E**	9	BIOS	27	SIMRAD EK60	38	-	BI500	ane, pil, spr	OPS	OTM	16
2005	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2005	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK500	38	12, 50	EV	ane, pil	OPS	OTM	20

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
2005	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2006	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil, spr	OPS	OTM	18
2006	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil	OPS	OTM	18
2006	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2006	**HRV**	**17 E**	9	BIOS	27	SIMRAD EK60	38	-	BI500	ane, pil, spr	OPS	OTM	16
2006	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2006	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2006	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2007	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil, spr	OPS	OTM	18
2007	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2007	**HRV**	**17 E**	9	BIOS	27	SIMRAD EK60	38	-	BI500	ane, pil, spr	OPS	OTM	16
2007	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2007	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2007	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies	ane, pil, spr	OPS	OTM	20
2008	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil, spr	OPS	OTM	18
2008	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK500	38	120, 200	EV	ane, pil	OPS	OTM	18
2008	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2008	**HRV**	**17 E**	9	BIOS	27	SIMRAD EK60	38	-	BI500	ane, pil, spr	OPS	OTM	16
2008	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2008	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2008	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies 3D	ane, pil, spr	OPS	OTM	20
2009	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	sprat, OPS	OTM	18
2009	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	OPS	OTM	18
2009	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2009	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil, spr	OPS	OTM	18
2009	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
2009	**ITA**	**9, 10**	8	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2009	**ESP**	**1, 6**	11, 12	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2009	**ESP**	**1, 6**	5, 6	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2009	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies 3D	ane, pil, spr	OPS	OTM	20
2010	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	spr	OTM	18
2010	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	OPS	OTM	18
2010	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2010	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil, spr	OPS	OTM	18
2010	**ITA**	**16**	6, 7	MARIA GRAZIA	42.4	SIMRAD EK60	38	120	EV	ane, pil		OTM	18
2010	**ESP**	**1, 6**	6, 7	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2010	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies 3D	ane, pil, spr	OPS	OTM	20
2011	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	spr	OTM	18
2011	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	OPS	OTM	18
2011	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2011	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil, spr	OPS	OTM	18
2011	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2011	**ITA**	**9, 10**	5, 6	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2011	**ESP**	**1, 6**	6, 7	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2011	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK500	38	70, 120, 200	Movies 3D	ane, pil, spr	OPS	OTM	20
2012	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	spr	OTM	18
2012	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	OPS	OTM	18
2012	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2012	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil, spr	OPS	OTM	18
2012	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2012	**ESP**	**1, 6**	6, 7	C. DE SAAVEDRA	67	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2012	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
2013	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	spr	OTM	18
2013	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	OPS	OTM	18
2013	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2013	**GRC**	**20**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2013	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil	OPS	OTM	18
2013	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2013	**ITA**	**10**	5, 6	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2013	**ESP**	**1, 6**	7	MIGUEL OLIVER	70	SIMRAD EK60	38	18, 120, 200	EV	ane, pil	OPS	OTM	20
2013	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20
2014	**ITA**	**17 W**	9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	spr	OTM	18
2014	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil	OPS	OTM	18
2014	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2014	**GRC**	**20**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2014	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil	OPS	OTM	18
2014	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2014	**ITA**	**9**	5, 6	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2014	**ITA**	**10**	5, 6	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2014	**ESP**	**1, 6**	6, 7	MIGUEL OLIVER	70	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2014	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20
2015	**ITA**	**17 W**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	spr	OTM	18
2015	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	OPS	OTM	18
2015	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2015	**GRC**	**20**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2015	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil	OPS	OTM	18
2015	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2015	**ITA**	**9, 10**	8, 9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
2015	**ESP**	**1, 6**	6, 7	MIGUEL OLIVER	70	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2015	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20
2016	**ITA**	**17 W**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	spr	OTM	18
2016	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	OPS	OTM	18
2016	**GRC**	**22**	6, 7	PHILIA	26	BioSonics DTX	38	120	EV	ane, pil		OTM	10
2016	**GRC**	**20**	6, 7	PHILIA	26	SIMRAD EK80	38	120, 200, 333	EV	ane, pil		OTM	10
2016	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil	OPS	OTM	18
2016	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2016	**ITA**	**9, 10**	8, 9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2016	**ESP**	**1, 6**	6, 7	MIGUEL OLIVER	70	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2016	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20
2017	**ITA**	**17 W**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	spr	OTM	18
2017	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	OPS	OTM	18
2017	**GRC**	**22**	6, 7	PHILIA	26	SIMRAD EK80	38	120, 200, 333	EV	ane, pil		OTM	10
2017	**GRC**	**20**	6, 7	PHILIA	26	SIMRAD EK80	38	120, 200, 333	EV	ane, pil		OTM	10
2017	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK60	38	-	EV	ane, pil	OPS	OTM	18
2017	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2017	**ITA**	**9, 10**	8, 9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2017	**ESP**	**1, 6**	6, 7	MIGUEL OLIVER	70	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2017	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20
2018	**ITA**	**17 W**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	spr	OTM	18
2018	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	OPS	OTM	18
2018	**GRC**	**22**	6, 7	PHILIA	26	SIMRAD EK80	38	120, 200, 333	EV	ane, pil		OTM	10
2018	**GRC**	**20**	6, 7	PHILIA	26	SIMRAD EK80	38	120, 200, 333	EV	ane, pil		OTM	10
2018	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK80	38	120	EV	ane, pil	OPS	OTM	18
2018	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18

Continued

Table S1 continued

Y	C	A	M	Vessel	L	Acoustic equipment	F	AF	S	T	AS	FG	CS
2018	**ITA**	**9, 10**	8, 9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2018	**ESP**	**1, 5, 6**	6, 7	MIGUEL OLIVER	70	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2018	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20
2019	**ITA**	**17 W**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	OPS	OTM	18
2019	**ITA**	**18**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK80	38	70, 120, 200	EV	ane, pil	OPS	OTM	18
2019	**GRC**	**22**	6, 7	PHILIA	26	SIMRAD EK80	38	120, 200, 333	EV	ane, pil		OTM	10
2019	**GRC**	**20**	6, 7	PHILIA	26	SIMRAD EK80	38	120, 200, 333	EV	ane, pil		OTM	10
2019	**HRV**	**17 E**	9	BIOS DVA	36	SIMRAD EK80	38	120	EV	ane, pil	OPS	OTM	18
2019	**ITA**	**16**	6, 7	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2019	**ITA**	**9, 10**	8, 9	G. DALLAPORTA	35.7	SIMRAD EK60	38	120, 200	EV	ane, pil		OTM	18
2019	**ESP**	**1, 5, 6**	7	MIGUEL OLIVER	70	SIMRAD EK60	38	18, 70, 120, 200	EV	ane, pil	OPS	OTM	20
2019	**FRA**	**7**	6, 7	L'EUROPE	29.6	SIMRAD EK60	38	70, 120, 200, 333	Movies 3D	ane, pil, spr	OPS	OTM	20

Abbreviations: Y *year,* **C** Country alpha 3 code, **A** GFCM Geographical Sub-Area, **M** month**, L** length (m), **F** frequency used for the assessment, **AF** ancillary frequencies, **S** software used for scrutinization, **T** target species, **AS** ancillary species, **FG** fishing gear, **CS** codend stretched mesh size (mm), **ane** *anchovy,* **pil** sardine, **spr** sprat, **SPF** small pelagic fish, **OPS** other pelagic species, **PU** purse seine, **OTM** single-boat midwater otter trawl, **EV** Echoview, **BS** BioSonics.